The USAID FEWS-NET

Africa Weather Hazards Assessment

for

March 10 - 16, 2005

Weekly Introduction:

Update of El Niño

Synopsis: A transition from weak warm-episode (El Niño) conditions to ENSO-neutral conditions is expected to continue during the next three months.

Sea surface temperature (SST) anomalies decreased in all of the Niño regions during February 2005. However, positive sea surface temperature (SST) anomalies greater than +1°C (~1.8°F) persisted in portions of the central and western equatorial Pacific.

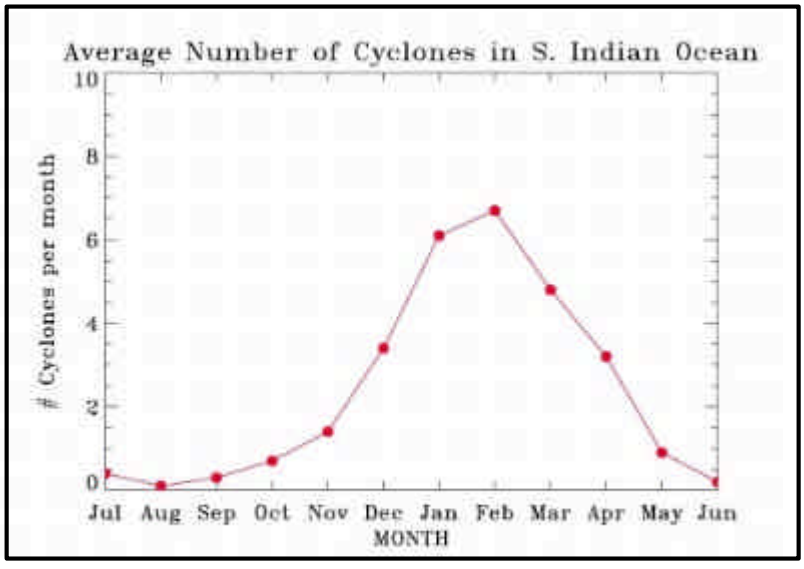
The pattern of anomalous warmth in the equatorial Pacific in recent months and the most recent 5-month running mean value of the Southern Oscillation Index (-0.5) indicate that a weak warm (mid-Pacific El Niño) episode is in progress. However, the recent decrease in SST anomalies throughout the equatorial Pacific suggests that a return to ENSO-neutral conditions is taking place.

Based on the recent evolution of SST anomalies and on a majority of the statistical and coupled model forecasts, it seems most likely that weak warm episode (El Niño) conditions will continue to weaken during the next three months and that ENSO-neutral conditions will prevail during the northern summer. The updated outlooks for the impact of the sea surface temperatures on Africa will be available for the introduction next week.

This discussion is a consolidated effort of NOAA and its funded institutions.

Update on South Indian Ocean Cyclone Season

It is now past the peak time for tropical cyclones in the southern Indian Ocean. The usual peak of the cyclone season is in February, when seven cyclones occur on the average. The average number of cyclones during the month of March decreases to five, with an average of three cyclones during the month of April. The tropical cyclone season begins December 15th and ends April 15th, however tropical cyclones are possible during any month of the year.



Weather Hazards Assessment Graphic:

Africa Weather Hazards Assessment

NOTE: Black hatched regions depict combined wheat, maize, sorghum, and millet crop zones which are active (sowing to harvest) during the current month. (from FAO)

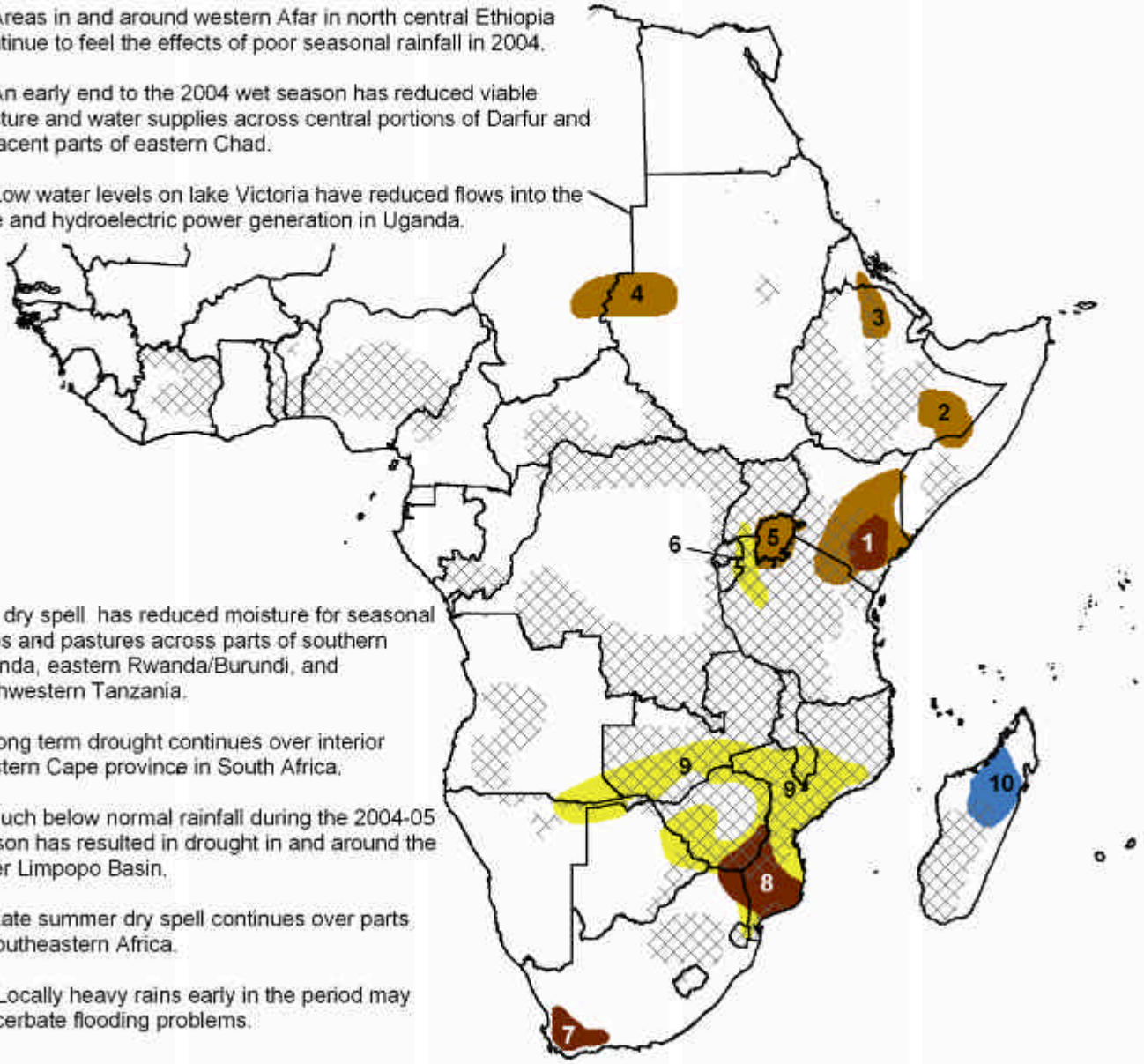
1. Drought continues to negatively affect areas of southern and eastern Kenya. Darker shading indicates the region of most intense dryness.

2. Parts of eastern Ethiopia have received below normal rains for the past two seasons.

3. Areas in and around western Afar in north central Ethiopia continue to feel the effects of poor seasonal rainfall in 2004.

4. An early end to the 2004 wet season has reduced viable pasture and water supplies across central portions of Darfur and adjacent parts of eastern Chad.

5. Low water levels on lake Victoria have reduced flows into the Nile and hydroelectric power generation in Uganda.



6. A dry spell has reduced moisture for seasonal crops and pastures across parts of southern Uganda, eastern Rwanda/Burundi, and northwestern Tanzania.

7. Long term drought continues over interior Western Cape province in South Africa.

8. Much below normal rainfall during the 2004-05 season has resulted in drought in and around the lower Limpopo Basin.

9. Late summer dry spell continues over parts of southeastern Africa.

10. Locally heavy rains early in the period may exacerbate flooding problems.

Valid: March 10 - 16, 2005

Weather Hazards Text Explanation:

1. Most of southern and eastern Kenya, as well as adjacent parts of northern Tanzania, received rainfall that was well below normal during both the long and short rainy seasons of 2004. This has reduced moisture for pastures in pastoral areas and main season crop planting in the bi-modal growing areas. Beneficial showers have been observed across northern Tanzania and southwestern Kenya over the past few weeks. Dry conditions are expected across most of the region during the period, however there is a chance of showers during the weekend over eastern Kenya. Across northeastern Tanzania the long rains typically begin in mid-March while in eastern Kenya they usually begin in late March or early April.

2. Rainfall during 2004 was about 50 to 70 percent of normal across Korahe, Gode and Afder zones in Ethiopia's Somali region, as well as adjacent portions of central Somalia. This may have stressed pastures and reduced water supplies. Seasonably dry conditions are expected across the region, although showers are expected north of the area along the Ahmar Mountains. Significant rains typically begin in April across the Somali region with the onset of the long rains.

3. Rainfall was erratic and well below normal during 2004 across western Afar, eastern Tigray, eastern Ahmara and adjacent parts of Eritrea. Rainfall totals were less than half of the long term mean in many areas, resulting in degraded pastures and water supply reductions. Occasional showers have been observed across parts of the region during the past few weeks, indicating that the Belg rains may be starting. Scattered showers are expected during the period, which would favor early Belg agricultural activities.

4. The 2004 wet season was shorter and drier than normal across much of central Darfur, as well as the Biltine and Ouaddai Prefectures in eastern Chad. This led to moisture shortfalls which in turn reduced viable pasture and water supplies in the area. Although the poor rains of 2004 were not unusual for this arid region, the dryness will certainly exacerbate the ongoing humanitarian crisis.

5. Lake Victoria's water levels remain very low. This is a result of lighter than normal rains and warm conditions over and around the lake. The low water levels have reduced flow into the Nile River. The low flow has resulted in reduced hydroelectric power generation and caused energy shortages in parts of Uganda, according to IRIN news. Rains typically increase over Lake Victoria during March, with the heaviest rains of the year typically falling in April and May.

6. Below normal rains fell over southwestern Uganda, eastern Rwanda/Burundi and northwestern Tanzania during January and February. The dry conditions may have reduced second season crop production in the area and are reducing moisture for main season crop planting and emergence. The dryness is also having a negative effect on pastures. Showers and thunderstorms over the past few weeks has boosted top soil moisture for main season crops and has benefited pastures. However, dry weather is expected during the period.

7. In Western Cape, South Africa near normal rainfall near the coast has contrasted sharply with much drier conditions inland, where only 25% to 60% of normal rainfall occurred from April to September of 2004. In many areas, the poor performance of the 2004 rains was in addition to lighter than normal rains in 2003. The extended drought has caused major drinking and irrigation water shortages, stressed pastures and has had a negative effect on dry land farming across interior parts of the province. Some dams are reporting being at or near record low levels. A frontal system is expected to bring scattered showers to Wesern Cape early on the 10th, however significant rainfall is not expected.

8. Rainfall amounts during the 2004-05 rainy season have been less than half of normal across Inhambane and Gaza provinces of Mozambique, Masvingo province in Zimbabwe, and the surrounding area. Rainfall deficits since November 1, 2004 range from 150 to greater than 350 mm. The lack of rainfall will likely result in yield reductions and crop failures for rain fed agriculture, stress to pastures, and reduction in water supplies for irrigation and consumption. The drought has also resulted in low river levels along the Limpopo River. A frontal system is expected to produce moderate to heavy during the first half of the period across the region. These rains will help to increase local water supplies and may benefit pastures, but are too late to benefit agriculture.

9. A lack of rainfall during February resulted in an untimely dry spell across much of Zimbabwe, central Mozambique, central and southern Malawi, southern Zambia, southeastern Angola and western portions of Namibia's Caprivi Strip. The dry spell, which resulted in 3 to 5 weeks of little rainfall, came during a critical stage of crop development. Soaking rains two weeks ago favored crops and pastures over much of northern Zimbabwe and central Malawi. However, conditions were dry once again last week. During the period, a slow moving frontal system is expected to interact with tropical moisture to produce widespread rains across the region. The heaviest rains are expected across southern and western portions of Zimbabwe, eastern Botswana and Namibia's Caprivi Strip where rainfall amounts of 50 to 150 mm are expected, with locally higher amounts. Localized flooding is possible in these areas. Lighter rainfall amounts are expected across southern Zambia, northeastern Zimbabwe, southern Malawi and central Mozambique. Rainfall amounts in these areas are expected to range from 20 to 60 mm, although some locally higher amounts are possible.

10. Torrential rains last week resulted in deadly flooding which damaged crops and destroyed homes over northern Madagascar. Devastating floods were reported around Lake Alaotra, about 200 kilometers northeast of Madagascar's capital city of Antananarivo. Last week, between 100 and 200 mm of rain fell across northern Madagascar, with 140 mm reported over Lake Alaotra. The floods ruined rice paddies and inundated villages around Lake Alaotra. According to News24.com, Lake Alaotra is considered Madagascar's "rice basket" and accounts for about 13 percent of the country's rice production. During the first three to four days of the period, locally heavy showers and thunderstorms are expected across northern Madagascar. Although these rains should not be as heavy as those observed last week, they will aggravate the flooding problems in the region.

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